1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

194/197 the group of words in which Fijian δ appears between vowels is not properly distinguishable from the words where Fijian δ corresponds to Pukapukan θ'.

In another category, however, Pukapukan θ' is replaced by the Fijian *s*, said to be pronounced "as in English": *yanga* (to do), *sanga*: *yelu* (to comb), *seru*; *yeye* (foolish), *sese*; *yeu* (to mix), *seu*; *yika* (netting needle), *sika*; *yinu* (oil), *sinusinu*; *yua* (water), *suasua* (wet).

Like the δ sound, Fijian *s* occurs in some words where no Pukapukan consonant is now used: *ala* (path); *sala*; *angaanga*[2], *sangasanga*; *olo* (to rub), *solo*.

I find no suggestion in the literature that the Fijian δ is ever palatalized, though this is invariable with the Pukapukan θ. But the semivowel *y* is another Fijian consonant used in some words where Pukapukan requires no consonant: *ate* (liver), *yate*; *atu* (row), *yatu*.

In a few Fijian words *y* corresponds to Pukapukan θ': *yala* (to encircle), *yala*; *yau* (to come), *yau* (to come or go); *yau* (dew), *yauyau* (fog or mist).

The sound θ appears in the Melanesian sound system as worked out by Ray (23,p.30). It is noted in particular for Nengone and Lifu of the Loyalty Islands and for Aneityum in the southern New Hebrides (23,pp.77,139). Because of inadequate linguistic material it is impossible to determine the relation between this Melanesian sound and the voiceless spirant of Pukapuka.

Pukapukan *w* is Fijian *v*. Other consonants seem to correspond in words common to both as follows (Pukapukan given first): k, k; k, ngg (q) ?; l, l; l, ndr; m, m; n, n; ng, ng; p, mb; t, t; t, nd; v, w.

It is regrettable that paucity of phonetic material for any Fijian dialect renders it impossible to draw conclusions, but when trustworthy phonetic and ethnographic material becomes available for the cultures crudely lumped together today as Fijian, it is not unlikely that phonetic and cultural anomalies found in the otherwise prevailing Polynesian culture of Pukapuka will prove no longer to be unique but part of a western sub-culture that may be traced from its eastern boundary in Pukapuka across to, and beyond, Fiji.

POPULATION

161/731/167 The population for the years for which figures are available (7) is as follows: 1906, 435; 1911, 490; 1916, 474; 1926, 526; 1935, 632.

The increase in population from 1906 to 1911, followed by a decrease in 1916, is at least partly explained by the fact that 52 Pukapukans were transferred to Rarotonga in September 1914, in order to relieve distress caused by the tidal wave that swept Pukapuka in January of that year. The population today shows a great increase over the population figures of 1916 and 1926. Records for 1933 and 1934 show a total of 41 births as compared

[2] Pukapukan informants held that the reduplicated form of the word *yanga* is not *yangayanga*, but *angaanga*.

1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

161 Records for 1933 and 1934 show a total of 41 births as compared with 22 deaths, which indicates that the population is increasing steadily. The
163 vital records of Pukapuka are not complete. An analysis was made, however, of the offspring for 16 marriages, where reliable figures were available.
165 These 16 marriages produced 77 children, a ratio of 4.8 children for each marriage. Of these children, 39 died before reaching the age of 20 years, a mortality rate of 50.6 percent. This seems to indicate a stationary population, but the fact that the population is increasing shows that the analysis is not typical of conditions today, even though it was perhaps true a number of years ago.

162 The population of each village of Pukapuka (as of June 16, 1935) is:

	Ngake		Loto		Yato		Island Total	
	M	F	M	F	M	F	M	F
Adults	84	80	54	67	61	48	199	195
	164		121		109		394	
Children	101		64		73		238	
Totals	265		185		182		632	

[621] These village figures, supplied by Geoffrey Henry, are based entirely on village lists made up for divisions of food and of copra money. They include all the people who affiliate (*tau*) with the named village, irrespective of village residence. The figures for adults include all those males and females who have attained sociological adulthood (*wakatane* or *wakawawine*), that is, all persons above the age of about 16 years, who receive adult shares in village food divisions.

From our own census data it was possible to work out the approximate sex ratio for 348 people:

	Adults	Adolescents	Total Adults	Children	Total
Male	88	18	106	77	183
Female	93	11	104	61	165
					348

In this list, the term "adults" includes all persons married or past marrying age; "adolescents" includes all persons between 15 years and marrying age; "children" includes all below 15 years.

The number of children does not agree, of course, with those given by the resident agent, because the villages do not list their children in terms of sex, which is unimportant for food divisions. The village figures show a ratio of 97.9 females to every 100 males; the census figures, 98.1 females to every 100 males.

1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

latest hurricane of which there is definite record (7, 1915) occurred on January 9, 1914. This was preceded by a severe storm on December 14, 1913. Visitors who landed on Pukapuka on April 24, 1914, recorded that the high seas had washed away all but seven houses and flooded all the talo swamps. The wind blew down from the trees all the mature nuts and swept them into the sea. The people took refuge in the higher parts of the talo beds and subsisted on immature nuts and fish. The government schooner transported 52 Pukapukans to Rarotonga and settled them there until the Pukapukan food supply should reach normal again. A hurricane, which swept the Cook Islands in February 1935, was marked by exceptionally high seas in Pukapuka, but did no damage.

In former times, when no relief from outside was available, tidal waves and hurricanes must have produced famines on Pukapuka, or else reduced the imminence of famine by drowning the majority of the population. Previous to the tidal wave of 300 years ago, the population of the atoll was probably between 1,000 and 2,000. After the wave swept over the island, the population was reduced to 15 men and their families. Famines gave rise to many of the killings recorded in Pukapukan history, owing to quarrels over the control of the available food supply. It was no mere coincidence, therefore, that formerly the morning rising of the Pleiades in late May, heralding a season of good weather, was accompanied by dancing and feasting. The London Missionary Society church merely continues an old pattern when it holds special services in March to render thanks for safety during the preceding hurricane season.

Native Weather Lore

The compass directions are named after winds (fig. 2) which are associated with the villages as follows:

Ngake: Kailua, Mauake, Malangai, Malangai tonga, Tonga, Mulitonga, Keo, and Pua.
Loto: Wakalua.
Yato: Tokelau iti, Tokelau matua, Wakatiu, Palapu, Yulu, Laki.

The association of villages with wind names seems to be derived from the geographical location of the villages and the lands which they control. Ngake, lying to the eastward, controls all the winds that blow on the east and south side of the atoll. Loto, between the other two villages, controls the only wind blowing from the sea onto the outer beach opposite the reserve of Uta. Yato, to the westward, controls the winds that blow over the reserve of Niua and across the reef joining Wale to Kotawa. The names of these winds are used in the chants of each village for symbolic reference; no village, in composing a new chant, would mention the name of a wind belonging to another village. Though the matter is now very vague, it is possible that

10: Beaglehole E-5 (1934-5)1937 Pukapukans

EMOTIONAL RELEASE IN A POLYNESIAN COMMUNITY

By ERNEST BEAGLEHOLE
VICTORIA UNIVERSITY COLLEGE, NEW ZEALAND

105 THE atoll of Pukapuka consists of three small islets strung on a coral ring. Apart from the tiny islet of Nassau, the nearest neighbor of Pukapuka is the Samoan Islands, some four hundred miles to the south. The total land area of the atoll [161] is less than one square mile. The population today numbers about five hundred people. In the past it was probably two or three times this number. For the most part, owing to the necessity of conserving food resources, all the people live on a small part of one islet only. The remainder of this islet and the other two islets are kept as food reserves visited only at times set by the controlling villages. The people are grouped into three villages, membership in which is by birth or by affiliation after birth.[1]

The year is roughly divided into two seasons. A season of fair weather with steady, cool, southeast trade winds lasts from March to November. From November on, the weather is marked by changeable and boisterous gales from the northwest. The average height of the land above sea level is about six feet. Hurricanes are infrequent, but when they do occur their effect is disastrous. Even without a hurricane, the time from November to March is one of ever-present anxiety and worry as to what the next day will bring forth. Since deep-sea fishing is difficult, this period is often marked by scarcity of both fish and plant foods.

105 [152] 156 181 The culture of the people is on the whole characterized by extraverted tendencies. Times of birth, marriage and death are punctuated with violent outbursts of emotion that is allowed full expression in chanting, dancing and wailing. In individual behavior the society sets a premium on vigorous action whether in love, sport or everyday life. That man, or woman, is honored who shows exceptional excellence in any of these activities. The ideal is competitive to a degree. A man is happy if he can outstrip his fellows in love or sport and then boast of his exploits in songs that he delights to chant. Naturally, for one to succeed,

156 578

[1] The social and economic organization of Pukapuka is described in *Formal Patterns of Pukapukan Culture*, by Ernest and Pearl Beaglehole, Bulletin in press, Bernice P. Bishop Museum, Honolulu, Hawaii. [See 1: Beaglehole and Beaglehole-analyst]